

REMARKS

The Office Action dated May 5, 2005, has been received and carefully noted. The above amendments to the claims, and the following remarks, are submitted as a full and complete response thereto.

Claims 1 and 4-10 are amended to more particularly point out and distinctly claim the subject matter of the invention. Claims 11 and 12 are added. No new matter is added and no further consideration and/or search is needed. Thus, claims 1-12 are pending in the present application and are respectfully submitted for consideration.

Claims 1-4 and 6-10 were rejected under 35 U.S.C. § 102(e) as allegedly anticipated by U.S. Patent No. 6,570,855 (Kung et al.). The Office Action took the position that Kung taught all the elements of claims 1-4 and 6-7. Applicants respectfully submit that Kung does not disclose or suggest all the features of any of the presently pending claims.

Claim 1, upon which claims 2-4 and 8 are dependent, recites a network switch. The network switch includes a plurality of ports that receive data packets. The network switch also includes an external address resolution interface connected to at least one of the plurality of input ports. The external address resolution interface externally transmits the data packets for processing, and receives the data packets after processing. The external address resolution interface is coupled to an external address resolution switch. The network switch also includes a memory management unit connected to the external

interface. The network switch also includes a plurality of output ports connected to the memory management unit.

Claim 6 recites a method of processing a data packet in a network switch. The method includes receiving a data packet in an input port. The method also includes transmitting the data packet from the input port over an interface to an external switch for address resolution. The method also includes processing the packet in the external switch. The method also includes transmitting the packet from the external switch to the interface. The method also includes receiving the data packet in the interface from the external switch. The method also includes transmitting the data packet from the interface to a memory management unit. The method also includes transmitting the data packet from the memory management unit to an output port.

Claim 7 recites similar features as claim 6, but is drawn to a network switch.

As discussed in the specification, examples of the present invention enable off loading of a host processor to reduce delays in packet forwarding. Examples of the present invention also allow for flexibility in the type of address resolution functions performed. For example, an external switch allows for increased flexibility and modularity in implementing address resolution logic functions as needed. Thus, a packet is transmitted externally as fast as possible so that minimal or no delay is experienced. It is respectfully submitted that the cited reference of Kung fails to disclose or suggest the elements of any of the presently pending claims. Therefore, the cited reference fails to provide the critical and unobvious advantages discussed above.

Kung relates to an automatic call manager traffic gate feature. Kung describes protecting a call manager from overloading during an extremely high volume of calls by providing for the off loading of calls from an overloaded call manager to another network resource. Referring to Figure 2 of Kung, an IP central station 200 is shown having a central router 210 that is used to interconnect various servers and gateways. Central router 210 may provide routing for least cost server 255, time of day server 212, domain name service (DN) server 214, and system management server 216. DN server 214 assigns IP addresses devices in customer premise equipment 102.

Applicants submit that Kung does not disclose or suggest all the features of the presently pending claims. For example, applicants submit Kung does not disclose or suggest “wherein said external address resolution interface is coupled to an external address resolution switch,” as recited in claim 1. Applicants also submit that Kung does not disclose or suggest “transmitting said data packet from said input port over an interface to an external module for address resolution” as recited in claims 6 and 7. Applicants respectfully submit that Kung does not disclose or suggest at least these features of the presently pending claims.

Applicants submit that Kung does not disclose or suggest an external address resolution interface coupled to an external address resolution switch. Kung, as shown in Figure 2, describes central router 210 as providing routing to a number of servers that perform various functions. The Office Action refers to DN server 214 allegedly as showing an external address resolution interface. Applicants submit that no external

switch for address resolution is disclosed or suggested by the central router or the associated servers of Kung. For example, Kung shows DN server 214 assigning IP addresses devices. DN server 214 fails to perform an address resolution function. Thus, Kung fails to disclose or suggest an external address resolution switch. For at least these reasons, applicants submit that Kung fails to disclose or suggest all the features of claims 1-4 and 6-7. Applicants respectfully request that the anticipation rejection be withdrawn.

Claim 5 was rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Kung in view of U.S. Patent No. 6,768,742 (Godfrey). The Office Action took the position that Kung taught all the elements of claim 5 except a DNS embodied on a chip. Godfrey was cited as providing those elements of claim 5 missing from Kung. Applicants respectfully submit that the cited references, either alone or in combination, do not disclose or suggest all the features of any of the presently pending claims.

Claim 5 depends directly from claim 1. Claim 1 is summarized above. Applicants submit that claim 5 recites the patentable features of claim 1, as well as other features.

Godfrey relates to an on-chip local area network. Godfrey describes implementing a network protocol for on-chip and off-chip data transfers. On-chip modules are interconnected through a plurality of on-chip packet-switched local area networks. A plurality of network interconnects the local area networks. The chip architecture of Godfrey allows modules to be clustered conveniently according to functionality, and the various modules interact with one another without overburdening the chip packing density.

Applicants submit that Kung fails to disclose or suggest all the features of any of the claims as discussed above. Applicants submit that Godfrey, either alone or in combination with Kung, does not disclose or suggest those features of claim 5 missing from Kung. For example, Kung and Godfrey, either alone or in combination, fail to disclose or suggest “wherein said external address resolution interface is coupled to an external address resolution switch,” as recited in claim 1. As discussed above, Kung does not disclose or suggest these features of the claims. Godfrey describes implementing a network protocol on a chip. The network protocol or the architecture of Godfrey does not disclose or suggest an external address resolution interface being coupled to an external switch. Instead, Godfrey describes handling a configuration between two or more modules. Thus, applicants submit that Kung and Godfrey, either alone or in combination, fail to disclose or suggest all the features of claim 5. Applicants respectfully request that the obviousness rejection be withdrawn.

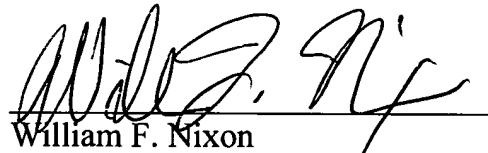
Applicants also submit that new claims 11 and 12 are not disclosed or suggested for at least the reasons given above. Further, new claims 11 and 12 recite additional patentable subject matter that is not disclosed or suggested by the cited references. Thus, applicants submit that new claims 11 and 12 are allowable over Kung and Godfrey.

Applicants submit that each of claims 1-12 recites subject matter that is neither disclosed nor suggested by the cited references, either alone or in combination. It is respectfully requested that all of claims 1-12 be allowed, and this application be passed to issue.

If for any reason the Examiner determines that the application is not now in condition for allowance, it is respectfully requested that the Examiner contact, by telephone, the applicants' undersigned attorney at the indicated telephone number to arrange for an interview to expedite the disposition of this application.

In the event this paper is not being timely filed, the applicants respectfully petition for an appropriate extension of time. Any fees for such an extension together with any additional fees may be charged to Counsel's Deposit Account 50-2222.

Respectfully submitted,



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